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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,161	05/05/2005	Knut Kieschnick	DE02 0251 US	2596

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EXAMINER	
ABDIN, SHAHEDA A	
ART UNIT	**PAPER NUMBER**
2629	

NOTIFICATION DATE	DELIVERY MODE
01/03/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/534,161	KIESCHNICK ET AL.	
	Examiner	Art Unit	
	Shaheda A. Abdin	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2005*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 7-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 7-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 October 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment field on 10/11/2007 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3,7, 9-11, 17 and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahara et al.(US Patent No: 6545653 B1).

(1) Regarding claim 1 and 9:

Takahara in (Fig. 3 and 29) discloses an apparatus and method of a display device (i.e. 81) with pixels (plurality of pixels) arranged in columns (i.e. Y1-Y2m) and rows (i.e. X1-Xn-1), in which the pixels of a row can be selected by means of a row

voltage supplied via control lines , and column voltages that correspond to the image data of the selected pixel to be displayed can be supplied via data lines (column 11, lines, 15-53) wherein mutually adjoining pixel groups (adjacent pixels) arranged in a row or column, consisting of adjoining pixels of a row or column, are connected to adjoining control lines or data lines as applicable, in alternation (see the illustration in Fig. 3, that adjacent pixel could be form in row or column which is connected through the control lines or data lines as applicable) (column 11, lines 21-53), some of the control lines (i.e. X1-Xn) being connected to a plurality of delay units (i.e. plurality of D flip-flop 94 is connected to 98) such that only every other control lines (e.g. X1, X3) being connected to the delay units such that only every other control line (i.e. X1, X3) is connected to a particular delay unit (i.e. respective D flip flop, which is showed in Fig. 4), the delay units being used to store row voltage values for the control lines connected to the delay units until a clock signal (e.g. CK1) is supplied to the delay units (see the illustration in Fig. 3 and 4, note that 38 is the delay unit for gate driver which has plurality of delay units (i.e. individual D flip-flop 94) through the respective out puts 94, which is connected to corresponding odd numbers gate lines) (column 11, lines 54-67, column 12, lines 1-13).

(2) Regarding claim 2:

Takahara teaches a pixel group comprising one pixel (i.e. pixels for LCD panel 81 , see Fig. 3).

(3) Regarding claim 3:

Takahara teaches mutually adjoining pixels (adjacent pixels) of one row are alternately connected to the adjoining control lines (i.e. X1., X3) (column 11, lines, 15-53.)

(4) Regarding claim 7:

Note that Takahara teaches pixel (101) comprising switching elements (switching device TFTs) with control terminals (gate terminal) which are connected to control lines (X1-Xn) and data terminals (source terminal) which are connected to data lines (Y1-Y2m) (see Fig. 29, column 31, lines 61-67, and column 32, lines 1-9)

(5) Regarding claim 10:

Takahara teaches wherein the delay units are 2 D-flip-flops (I,e, plurality of D flip-flop 94 (see Fig. 4 and column 11, lines 54-67).

(6) Regarding claims 11 and 17:

Takahara teaches a display device (i.e. 81 in Fig. 11 and 29) and method with pixels arranged in columns (i.e. Y1-Y2m) and rows (X1-Xn) , in which the pixels of a row can be selected by means of a row voltage supplied via control lines (lines from 41 and 43), and column voltages that correspond to the image data of the selected pixel (e.g. pixel by corresponding odd data lines) to be displayed can be supplied via data lines (e.g. Y1, Y3) (column 20, lines 16-49), wherein mutually adjoining pixel (i.e.

adjoining pixels) groups arranged in a row or column, consisting of adjoining pixels of a row or column, are connected to adjoining control lines or data lines (see Fig. 11), as applicable, in alternation, some of the data lines (e.g. Y1, Y3) being connected to a plurality of delay units (i.e. switching circuits 143 for the particular data lines (e.g. Y1, Y3) in Fig 11, (see the illustration in Fig. 11 and16A and 16 B) such that only every other data line (i.e. Y1, Y3) is connected to a particular delay unit, the delay units being used to store column voltage values for the data lines (e.g. Y1, Y3) connected to the delay unit until a clock signal is supplied to the delay units (column 16, lines 29-37, column 20, lines 22-67 and column 21, lines 1-6).

(7) Regarding claim 13:

Takahara teaches characterized in that a pixel 2 group comprises one pixel (i.e. pixels for LCD panel 81 , see Fig. 3).

(8) Regarding claim 14:

Takahara teaches that mutually adjoining pixels of a column are connected to the adjoining data lines (i.e. Y1, Y3) in alternation (see Fig. 11) .

(9) Regarding claim 15:

Note that Takahara teaches that the pixels (pixels of panel 81) comprise switching elements (i.e. 86) with control terminals (33) which are connected to the control lines and data terminals which are connected to the data lines (e.g. Y1, Y3) (see Fig. 29).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al. in view of Kimura et al. (US patent No: 5253091).

Regarding claims 8 and 16:

Note that Takahara does not discloses the rows and columns situated at the edges of the display device are covered.

However, Kimura in the same field of endeavor discloses the rows (horizontal rows) and columns (vertical columns) situated at the edges of the display device are covered (see fig. 4 and F fig. 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of row and column as situated at the edges as taught by Kimura into the display device of Takahara so that the rows and columns could be situated at the edges of the display device are covered (see fig. 4 and F fig. 6). In this configuration the system would reduced screen flicker with out increasing electric power consumption of the data drive circuit (Kimura, column 2, lines 29-36).

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al. in view of Zhang et al. (US patent No: 6806862 B1).

Regarding claim 12:

Note that Takahara teaches delay units but Takahara does not specifically mentioned wherein the delay units are D-flip-flops.

However, Zhang et al. in the same field of endeavor teaches the delay units are D-flip-flop (120-129)(see Fig. 5 and 8, column 7, lines 26-43 and column 11, lines34-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a method of delay unit as taught by Zhang in to the display system of Takahara so that the delay units could be D-flip-flops. In

this configuration the system would have a improved display quality in the display device (Zang column 2, lines 60-65)

Response to Arguments

7. Applicant's arguments with respect to claims 1-3, 7-11 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the references Takahara et al. (US-6545653) and Zhang (US Patent No: 6806862 B1), is added for the new ground of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiry

9. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen, can be reached at (571) 272-7772.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tool-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

(703)872-9314 (for Technology Center 2600 only)

Shaheda Abdin

12/17/2007

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SUPERVISORY PATENT EXAMINER